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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,115

05/19/2006

Yong Hee Kim

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EXAMINER

KO, JASON Y

ART UNIT

PAPER NUMBER

1792

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DELIVERY MODE

01/27/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,115	<b>Applicant(s)</b> KIM, YONG HEE	
	<b>Examiner</b> JASON Y. KO	<b>Art Unit</b> 1792	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-11,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-11,14 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/19/2010 has been entered.

### ***Response to Applicant's Amendments***

1. This Office Action is responsive to the amendment filed on 01/19/10. Claims 1-3, 5-11, and 13-1 are pending. Claims 1, 3, 6, 9-11, and 14 have been amended. Claims 4, 12, and 16-20 have been canceled.

### ***Response to Arguments***

2. The non-statutory obviousness-type double patenting rejection has been withdrawn in response to Applicants' amendments filed January 19, 2010, and a new rejection has been made below

3. The claim objection has been withdrawn in response to Applicants' amendments filed January 19, 2010.

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4. The claim rejections under 35 U.S.C. 102(b) have been withdrawn in response to Applicants' amendments filed January 19, 2010.

5. The claim rejections under 35 U.S.C. 103(a) have been withdrawn in response to Applicants' amendments filed January 19, 2010.

6. Applicants' arguments are considered moot in light of the withdrawal of rejections.

### ***Double Patenting***

7. Claims 1 and 6-8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-4, 10, 12-13, 15, and 21-22 of copending Application No. 10/580,117. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of corresponding claims are directed to a condensing apparatus of a dishwasher and the air duct arrangement, blower, outlet ports, and a ridge.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

8. **Claims 1-3, 6, 9-11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by SCHMID (USPA 2003/0140517).**

9. Regarding Claims 1, 3, 9 and 11, SCHMID teaches a condensing apparatus for condensing vapor inside a dish washer tub, comprising: a blower (fan 16, Fig. 1) for

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suctioning vapor from inside the tub; an air duct (8) connected to the blower and forming a vapor passage, wherein the vapor passage includes a ridge (the vertical surface where reference numeral 18 is pointing to, Fig. 1) formed thereon for stopping condensed water, the vapor passage including a horizontal part and a vertical part (top and bottom are horizontal, middle is vertical, See Fig. 1; they are in fluid communication and the vertical part is bent from the horizontal part regarding Claim 9) (the ridge is formed at a point where the vapor passage transitions from the horizontal part to the vertical part regarding Claims 4 and 11, See Fig. 1); a condensed water discharge port formed at the air duct for discharging condensed water from the vapor (either where 18 is pointing to or the area where valve 13 is, Fig. 1); and a vapor exhaust port (directly above where reference numeral 17 points to) spaced apart from the condensed water discharge port for exhausting vapor from which water has been removed to the outside of the dishwasher (the dish washer being defined as the compartment of dishwashing machine 1 including the tub, and the condensing device as being "outside the dishwasher") and wherein the ridge included in the vapor passage is configured to protrude upward from an inner bottom surface (bottom surface regarding Claim 9) of the horizontal part (the angled piece between the bottom wall where 9 is pointing to and directly to the left of reference numeral 13 is an inner bottom surface of the horizontal part, Fig. 1) and configured to collect at least some of the condensed water on the floor of the horizontal portion (the ridge would allow water to condense and collect on the floor of the horizontal portion where reference numeral 9 generally points to).

Particularly regarding the ridge, no structure has been positively claimed other than a

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“ridge” and thus, the ridge of SCHMID is considered to read on this part of the claimed limitation.

10. Regarding Claims 2 and 10, SCHMID teaches the vapor passage to form a meandering line passage including a straight portion and curved portions.

11. Regarding Claims 6 and 14, SCHMID teaches the air duct to include a portion between the condensed water discharge port and the vapor exhaust port, the portion being inclined at a predetermined angle larger than zero and smaller than 90 degrees to a horizontal line (the piece the ridge protrudes from is angled and placed between the two ports, and places the water discharge port lower than the vapor exhaust port). See Fig. 1.

### ***Claim Rejections - 35 USC § 103***

**12. Claim 1-3, 6, 9-11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHMID (USPA 2003/0140517) in view of KIM (USPN 5,277,210).**

13. In the event that Claims 1 and 9 are not found to be anticipated by SCHMID, it is rejected as unpatentable over SCHMID in view of KIM because KIM teaches a dishwasher having an air outlet which communicates to an outside of the dishwasher (dry air discharge outlet 106, Fig.3 ) for discharging hot, humid, and pressurized air to the outside (See col. 4 lines 31-34), it would be obvious to modify the condensing device as taught by SCHMID and to have the hot and humid air discharged to an outside to remove moisture, which would also be obvious to try because either the air

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can be recirculated as taught by SCHMID or expelled from the dishwasher as taught by KIM.

14. Claims 2-3, 6, 9-11, and 14 are rejected over SCHMID in view of KIM because SCHMID teaches or makes obvious the claimed limitations as described above in the 35 USC 102(b) rejections.

**15. Claims 7-8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHMID (USPA 2003/0140517) in view of KIM (USPN 5,277,210) further in view of ENOKIZONO (USPN 5,337,500).**

16. SCHMID (or SCHMID in view of KIM) is relied upon as described above in the rejections of Claims 1 and 9.

17. Claims 7-8 and 15 are directed to a dryer fan and a condenser fan and a motor which drives both fans, which SCHMID fails to teach explicitly, but teaches a fan driven by a motor.

18. It is obvious to duplicate parts such as a fan because it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Furthermore, it is well known in the art to provide a dryer and condenser fan both of which are driven by a single motor, as for example, ENOKIZONO teaches (fans 72 and 86 driven by motor 74, Fig. 1).

19. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the dishwasher having a dryer as taught by SCHMID (or SCHMID in view of KIM) and add another fan and a motor, which is a known configuration, suggested to be efficient in circulating vapor and air and improving heat

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exchange efficiencies for a condenser/dryer within a dishwasher as taught by ENOKIZONO.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON Y. KO whose telephone number is 571-270-7451. The examiner can normally be reached on Monday-Thursday; 9:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL BARR can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JYK/  
Jason Y. Ko  
Patent Examiner, Art Unit 1792  
21 January 2010

/Michael Barr/  
Supervisory Patent Examiner, Art  
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